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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,664	03/30/2004	Yong Qiang Wang	3993968-150413-1	3560
7590 02/14/2007 Porter, Wright, Morris & Arthur LLP 41 South High Street Columbus, OH 43215			EXAMINER PILKINGTON, JAMES	
			ART UNIT 3682	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/14/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/812,664

Applicant(s)

WANG, YONG QIANG

Examiner

James Pilkington

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 18-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially" in claim 18 is a relative term of degree which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining how "substantially" parallel two members must be to read on the claim, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Could the two members be 2 degrees out of the range of a parallel relationship or 20 degrees?

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell, US PGPub 2004/0244524, in view of Osborn, USP 5,277,077.

Re clm 1, Russell discloses a shifter mechanism comprising, in combination:

- A shifter lever (14) movable along a shift path

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- A detent plate (34) movable with the shifter lever (14) along the shift path and forming a detent profile defining a plurality of gear positions (Figure 3)
- A pawl (54) movable between a locking position wherein the pawl engages the detent profile to lock the shifter lever in one of the plurality of gear positions against movement and an unlocking position wherein the shifter lever is movable along the shift path between the plurality of gear positions
- An actuator (56) operatively coupled to the pawl (54) to selectively move the pawl (54) from the locking to the unlocking position

Russell does not disclose that the pawl includes a roller that engages the detent profile.

Osborn teaches a pawl (42) that includes a roller (43) that engages the detent profile for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort (C2/L30-35).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a pawl that includes a roller that engages the detent profile, as taught by Osborn for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort.

Re clm 2, Russell discloses that the detent profile includes a plurality of grooves (see Figure 3).

Re clm 3, the actuator (56) is a linear actuator having a pin (90, see Figure 6) extendable along a linear path.

Re clm 4, the linear actuator (56) is a solenoid (see paragraph 0033).

Re clm 5, the pin (90) is in an extended position when said actuator (56) is energized and a retracted position when said actuator is unenergized (see paragraph 0033).

Re clm 6, the pin is in an extended position when the pawl (54) is in the unlocked position and a retracted position when the pawl (54) is in the locking position (see Figures 5 and 6).

Re clm 7, Russell in view of Osborn discloses the roller (Osborn 43) is rotatably secured to a detent lever (Russell 58) and the detent lever is pivotable to move the pawl between the locking position and the unlocking position (see Figures 5 and 6).

Re clms 8 and 9, Russell in view Osborn discloses that the pawl (Osborn 42) moves along an arcuate path between the locking position and the unlocking position {clms 8 and 9} and the actuator (Russell 56) is a linear actuator which is operatively connected to the detent lever to pivot (Russell 58) to pivot the detent lever along the arcuate path {clm 8}.

5. Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell, US PGPub 2004/0244524, in view of Kataumi, USP 5,445,046.

Re clm 10, Russell discloses a shifter mechanism comprising, in combination:

- A shifter lever (14) movable along a shift path

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- A detent plate (34) movable with the shifter lever (14) along the shift path and forming a detent profile defining a plurality of gear positions (Figure 3)
- A pawl (54) movable between a locking position wherein the pawl engages the detent profile to lock the shifter lever in one of the plurality of gear positions against movement along the shift path and an unlocking position wherein the shifter lever is movable along the shift path between the plurality of gear positions
- A pivotable detent lever (58) carrying the pawl over A linear actuator (56) operatively coupled to the pawl (54) to selectively move the pawl (54)

Russell does not disclose that the pawl moves in an arcuate path.

Kataumi teaches a pawl (30) that is moved by an actuator (spring) in an arcuate path for the purpose of engaging a plurality of detent teeth in a releaseable manner (C1/L36-54).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell and provide a pawl (30) that is moved by an actuator in an arcuate path, as taught by Kataumi, for the purpose of engaging a plurality of detent teeth in a releaseable manner.

Re clm 11, Russell discloses that the detent profile includes a plurality of grooves (see Figure 3).

Re clm 12, the actuator (56) is a linear actuator having a pin (90, see Figure 6) extendable along a linear path.

Re clm 13, the linear actuator (56) is a solenoid (see paragraph 0033).

Re clm 14, the pin (90) is in an extended position when said actuator (56) is energized and a retracted position when said actuator is unenergized (see paragraph 0033).

Re clm 15, the pin is in an extended position when the pawl (54) is in the unlocked position and a retracted position when the pawl (54) is in the locking position (see Figures 5 and 6).

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell, US PGPub 2004/0244524, in view of Kataumi '046, and further in view of Osborn, USP 5,277,077.

Re clm 16, Russell in view of Kataumi discloses all of the claimed subject matter above.

Russell in view of Kataumi does not disclose that the pawl includes a roller that engages the detent profile.

Osborn teaches a pawl (42) that includes a roller (43) that engages the detent profile for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort (C2/L30-35).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Russell in view of Kataumi and provide a pawl that includes a roller that engages the detent profile, as taught by Osborn for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort.

Re clm 17, Osborn discloses that the roller (43) is rotatably secured to the detent lever (40).

Allowable Subject Matter

7. Claim 18, and the claims depending therefrom, would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Response to Arguments

8. Applicant's arguments filed 12/22/06 have been fully considered but they are not persuasive.

9. The applicant argues on page 8 lines 11-16 that none of the prior art of record reasonably discloses or suggests a pawl that includes a roller that engages the detent profile when the pawl is in the locking position to lock the shifter lever in one of a plurality of gear positions against movement along the shift path.

It is the examiner's position that Russell does indeed disclose a pawl that engages a detent profile when the pawl is in the locked position to lock the shifter lever in one of a plurality of gear positions as noted above. The examiner agrees that Russell does not disclose that the pawl comprises a roller. However, Osborn teaches a pawl that comprises a roller and engages detent for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort (C2/L30-35). In view of this combination it is the examiner's position that the prior art as a whole does indeed teach a pawl that includes a roller that engages the detent profile when the pawl is in the locking position.

10. The applicant argues on page 9 lines 21-27 that none of the prior art of record reasonably discloses or suggests that a pivotable detent lever carrying the pawl over an arcuate path between the locking and unlocking position and that a linear actuator is operatively coupled to the detent lever.

It is the examiner's position that Russell clearly shows a pivotable detent lever 58 that carries the pawl 54 and the detent lever 58 is operatively coupled to a linear actuator 56. The examiner agrees that Russell does not disclose that the pawl moves in an arcuate path. However, the examiner relies upon Kataumi to teach that a pawl 30 can move in an arcuate path when actuated by a linear actuator, in the case of Kataumi the linear actuator is a spring. In view of this combination it is the examiner's position that the prior art as a whole does indeed teach a pivotable detent lever carrying the pawl over an arcuate path between the locking and unlocking position and that a linear actuator is operatively coupled to the detent lever.

11. The applicant states on page 10 part d of the remarks that the examiner rejected claims 10 to 15 using Russell in view of Wheeler. It appears that the applicant meant to say claims 18-20 since it was these claims that were rejected in the past office action with Russell in view of Wheeler. These arguments are moot and the rejection of claims 18-20 under Russell in view of Wheeler has been withdrawn.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JP

2/6/07



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